

***Envelop Your School in Agriculture* Now Accepting Applications for the Third Year of the Grant Program. Applications are now being accepted for participation during the 2012-13 School Year.**

Please review the information below and contact Dr. Judith Leith for more information at [Judith.leith@state.de.us](mailto:Judith.leith@state.de.us) or (302) 698-4518. You may also complete the application at the bottom of this information and submit it to the E mail address above.

**Program Description for Envelop Your School in Agriculture**

**Abstract:** Many students have no knowledge of healthy eating habits and no concept of what is involved in producing specialty crops. The consumption of these products is often limited both in the home and at school. The purpose of this project is to provide students with an opportunity to grow and eat specialty crops, and to develop life skills regarding nutrition, which will result in a healthy lifestyle, which includes consumption of specialty crops in their healthy diets. Dr. Judith Leith, Trainer/Educator III for the Delaware Department of Agriculture, has created a program entitled *Envelop Your School in Agriculture*. The program is focused on grades K-5. This program has been created to introduce, foster appreciation of, cook and eat, and grow specific produce and horticultural products, and to develop food choices using these crops, which foster sound nutrition and healthy choices.

**Objectives include:** introducing students to vegetables and fruits which they have not eaten, teaching students the importance of these commodities in a healthy lifestyle, assisting students in a garden experience- including an actual garden- and preparatory knowledge regarding soils, climate, and nutrition. Mentors and school lunch planners and personnel will be enlisted for assistance in creating menus and offering food choices employing these specific commodities.

**Purpose:** This three-year project will involve twelve schools (four during the initial year, four added the second and third years) in exposure to specialty crops, which they may not have eaten or grown due to cultural, social, or economic factors, or lack of knowledge. Students will learn about factors, which influence food availability, planting and harvest, local produce choices, and the economic and nutritional benefits of using and growing specialty crops.

**This program is designed to begin on the early childhood level and continue to early adolescence (Grades K-5).** By building on skills and experiences gained during each stage of the project, students will develop a knowledge base and a deeper understanding of specialty crop availability, benefits, and processes. This sequential learning will result in a long-term exposure to these food choices and a deeper understanding of the nutritional and economic benefits of eating specialty crop products. This graduated learning will result in students having a longer time to inform their caregivers about what they are experiencing, and will possibly influence household consumer choices which increase the use of specialty crops in family diets.

**Potential Impact:** At the end of the three year project, over 6,000 Delaware students in twelve public, private, and special schools throughout the entire state will have participated in an on-going, expanding skills program which exposed them to identification, cooking, eating, menu planning, growing, and nutritionally evaluating specialty crop items. The cumulative growth of skills and practices will serve as the basis for healthy lifestyle choices which will, inevitably, mandate including specialty crops as part of their lifestyle dietary choices, resulting in more extensive sales and use of specialty crops. Household and school choices may also be impacted by this knowledge.

**Expected Measurable Outcomes:** The goal of this project is to have students consume and grow specialty crops, and develop dietary habits using these crops which lend themselves to healthy lifestyles. Measurable outcomes include completion of class activities and optional follow up activities scheduled for each grade level, and preparation, planting, harvesting, menu creation, and eating of garden specialty crops. **All grade levels will feature tastings of a variety of specialty crops.** Initial and final diet surveys and recognition activities will be completed for each grade. This will determine the baseline of previously- untasted and unrecognized specialty crops which will be introduced through tasting, cooking, and nutritional exercises and activities. The total number of fruits and vegetables incorporated will vary by grade level and will include samplings of all categories of specialty crops. Grades K-3 will be introduced at a minimum to two specialty crops per month, resulting in a minimum of 24 specialty crops. This introduction will including the following : avocado, cranberry, papaya, pecan, artichoke, cucumber, chive, eggplant, squash, cinnamon, dill, fennel, lavender, mint, rosemary, thyme, fig, filbert, pear, olive, persimmon, pineapple, walnut, and cashew.

Because grade four features the school garden, primary concentration will be on specialty crops which can be grown in Delaware incorporated in tastings and recipes with the K-3 list above. School garden-grown specialty crops will include: strawberries, raspberries, watermelon, lima beans, beets, tomato, carrot, lettuce, onion, pea, potato, pepper, pumpkin, and squash. Since the concentration for grade five is nutrition, this group will be introduced to, cook with, collect nutritional information, and create home and school menus using all of the K-4 crops listed above. In addition, they will concentrate on research, recognition, and use of additional culinary herbs including: allspice, chamomile, cardamom, cilantro, curry, lemon balm, nutmeg, saffron, turmeric and washable.

These students will collect and introduce to their schoolmates, cafeteria, and homes menus and nutritional and cultural information regarding the use of the culinary herbs. The detailed pre, on-going, and post dietary log and nutritional research created by these students will be an additional benchmark and measurable to the diet survey kept by the other grade level students.

Quarterly examination of the ongoing dietary surveys completed by every student every month will determine what new fruits and vegetables that they are eating at home and at school. Increase purchasing of Delaware Specialty Crops will occur for both school and home use through this exposure and education. Households will be encouraged to purchase more Delaware crops through this exposure in school. Students will be given seeds to plant at home which are Delaware specialty crops, also increasing awareness and consumption.

It is predicted that there will be an increase of at least 25% in the consumption of fruits and vegetables due to the opportunities to grow, sample and cook at school and at home and also due to the campaign to encourage consumption at home through student experiences, nutritional projects and information, and recipes sent home.

Some of the devices and activities to create measurable outcomes will include (in addition to sampling, growing, and menu creation for school and home):

**Kindergarten:** Identification and tasting of a variety of specialty crop fruits and vegetables. Many of our young students cannot recognize the majority of specialty crop items. Measurable outcomes will be evidenced by student identification of both real and pictorial commodities, and by tastings and pictorial diet journals.

**First Grade:** Plants and Seeds. Students will learn about pollination, plant requirements, and climate. They will plant seeds in various mediums on windowsills and in containers, and will conduct experiments growing plants under various conditions. Students will keep an observational journal (mainly pictorial) of plant growth, and experiment results. Measurable outcomes – plant part labeling, care of classroom plants, experiment observations, and journals.

**Second Grade:** Soils and Other Plant Needs. Building on earlier plant knowledge, students will study soils and their impact on specialty crops. They will learn characteristics of Delaware soils, construct small soil pits, label soil components, and do physical activities and experiments, which illustrate soil characteristics. Measurable outcomes will include exercises on soil types and characteristics, and experiment observations.

**Third Grade:** From Planting to Table. This group will examine seasonality, Delaware specialty crops, and visit a farm or nursery (if not possible, a classroom visit from a farmer or nursery grower will be substituted). They will develop questions and conduct phone or personal interviews with producers and interview questions, analysis of replies, reactions to farm visit, and poster contents.

**Fourth Grade:** The Agricultural Community as Long-Time Stewards of the Land- the Garden. Students will study past and present agricultural practices, especially as related to Delaware farmers' stewardship of the land. They will plan, plant, maintain, and harvest a garden with specialty crops, and use the products in classroom and school tastings. They will create menus and diets based on specialty crops. Summer produce will be frozen and used in the fall. Measurable outcomes will include successful planting and harvesting, menu creation, and healthy diet plans.

**Fifth Grade:** Nutrition. Students will have instruction and complete activities relating to making healthy food choices using specialty crops as an integral part of their diet. They will complete pre, pending, and post project surveys which analyze their food choices, keep a food journal, create menus, collect recipes, and have taste tests using these crops. They will develop posters for their school. They will collect and analyze results of surveys tracking eating habits and food choices in the cafeteria and suggest menus to include more specialty crop items. Measurable outcomes will include analysis of the pre, pending, and post surveys, materials developed for students and the cafeteria, and result of student surveys before and after the additional specialty crop items have been offered in the cafeteria.

**Plan of Work:** The first year four K-5 schools will be targeted; second year, four more schools, and third year, four more schools- a total of twelve schools- four in each county. Tasks will include classroom visits with activities twice a month to grades K-3 and grade 5, and four times a month to grade 4(the gardening grade) making a total of 14 hours per month spent in each school. In addition to the time spent in each school, the teacher will be provided with activities and materials, which will expand the subject. These activities and materials may be used according to the teacher's schedule, in or out of the classroom, or sent home.

Classroom visits will feature hands-on activities using curriculum including *Project Food, Land & People*, *Agriculture in the Classroom*, *The Farmer Grows a Rainbow*, and materials from the *Agri-Mentor* program, a successful ten year old classroom project program developed by the grant requestor and chief facilitator of this project. Classroom visits will begin in late September. Purposes will be addressed through hands-on activities and supplemental materials given to the classroom teacher. All activities will be correlated to Delaware Content Standards or Common Core Standards.

## Application for School Participation

### *Envelop Your School in Agriculture*

School Name and Address:

---

---

Number of Students in Grades K-5: \_\_\_\_\_

\*K students may be located in another building, as long as part of the same district. If so, list other School Name and Address:

---

---

\*\*All students in each grade level may participate, or there may be one class from each grade level participate.

Number of Teachers/Support Staff who will participate: \_\_\_\_\_

Contact Person(s) for scheduling and further information: \_\_\_\_\_

Telephone or E Mail address: \_\_\_\_\_

Is there an area available to establish gardens? \_\_\_\_\_

Questions, Comments, or Concerns:

---

---

---

---

---

For more information or questions regarding this program, please contact Dr. Judith Leith, Program Coordinator at (302) 698-4518 or [Judith.leith@state.de.us](mailto:Judith.leith@state.de.us)